Abstract of the Disclosure

A process for the continuous production of a mixture of substances or of a reaction mixture that has been formed by reaction of components contained therein. The component streams withdrawn from a storage container (1, 2 or 3) or a distribution network (12) are each conveyed via a controlled system (22, 23, 24, 25) which in each instance comprises a flow-measuring device (8, 9, 10, 11) and a regulating element (34, 35, 36, 37). The flow-rates of the individual components are regulated in quantitatively proportional manner with reference to the flow-rate of a first component. The resulting regulated flow-rates are introduced into a receiving container, either directly or after individual flow-rates have been completely or partially conducted together. The process and the device are especially suitable for the on-site production of mixtures of substances that cannot be transported or that can only be transported in elaborate manner, such as relatively highly concentrated solutions of peroxycarboxylic acid.